

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Currently Amended) A method of activating the differentiation of neural cells in an injured brain or spinal cord comprising the steps of: transplanting bone marrow cells into a ~~penumbral~~-central nervous tissue adjacent to an injured brain or spinal cord tissue; and thereby activating the endogenous central nervous system stem cells to differentiate into neurons.

3. (Currently Amended) A method of treating injured brain or spinal cord cells comprising the steps of: transplanting cultured bone marrow cells into a ~~penumbral~~-central nervous tissue near the injured brain or spinal cord cells; and generating new neurons at the location of transplantation ~~or of intravascular injection of cultured~~the bone marrow cells.

4. (Currently Amended) A method of treating an injured brain or spinal cord in a patient by injecting or transplanting a composite of mesenchymal stem cells (MSCs) and neurospheres into a ~~penumbral~~-central nervous tissue adjacent to an impaired nervousbrain or spinal cord tissue of the patient, in order to activate endogenous stem cells in the brain or spinal cord to differentiate into parenchymal cells.

5. (Currently Amended) A method of treating a patient suffering from a brain or spinal cord injury or neurodegenerative disease, the method comprising administering cultured bone marrow stromal cells into a central nervous tissue adjacent to an impaired nervous tissue of the patient in order to activate endogenous stem cells in the braincentral nervous tissue

to differentiate into parenchymal cells, ~~wherein the central nervous tissue adjacent to the impaired nervous tissue comprises a penumbral tissue.~~

6. (Previously Presented) A method of treating a patient suffering from a brain or spinal cord injury or neurodegenerative disease, the method comprising administering cultured bone marrow stromal cells into a central nervous tissue adjacent to an impaired nervous tissue of the patient in order to activate endogenous stem cells in the brain to differentiate into parenchymal cells, wherein the central nervous tissue adjacent to the impaired nervous tissue comprises an ischemic boundary zone.

7. (Previously Presented) A method of treating a patient suffering from a brain or spinal cord injury or neurodegenerative disease, the method comprising administering cultured bone marrow stromal cells into a central nervous tissue adjacent to an impaired nervous tissue of the patient in order to activate endogenous stem cells in the brain to differentiate into parenchymal cells, wherein the cells are administered to the central nervous tissue adjacent to an impaired nervous tissue by way of intravascular administration.

8. (Previously Presented) The method of claim 5, wherein the cells are administered to the central nervous tissue adjacent to an impaired nervous tissue by way of direct transplantation.

9. (Previously Presented) The method of claim 5, wherein the impaired nervous tissue comprises a brain tissue.

10. (Previously Presented) The method of claim 5, wherein the impaired nervous tissue comprises a spinal cord tissue.

11. (Currently Amended) The method of claim 5, wherein the impaired nervous tissue comprises a lesion and further wherein the penumbral-central nervous system tissue is adjacent to the lesion.

12. (Currently Amended) The method of claim 5, wherein the impaired nervous tissue comprises a lesion and further wherein the penumbral-central nervous system tissue is an ischemic boundary zone adjacent to the lesion.

13. (Previously Presented) The method of claim 5, wherein the impaired nervous tissue comprises a tissue affected by stroke.

14. (Previously Presented) The method of claim 5, wherein the neurodegenerative disease is Parkinson's disease.

15. (Previously Presented) The method of claim 3, wherein the location of intravascular injection is intraarterial.

16. (Previously Presented) The method of claim 3, wherein the location of intravascular injection is intravenous.